

S  
371.716  
P11GWB  
1977

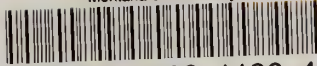
# A GUIDE TO WISE BUYING FOR SCHOOL FOOD SERVICES

STATE DOCUMENTS  
SEP 7 '77



STATE OF MONTANA  
OFFICE OF PUBLIC INSTRUCTION  
GEORGIA RICE, SUPERINTENDENT  
CAPITOL  
HELENA, MONTANA 59601





## INTRODUCTION

Serving well-accepted meals to a large portion of the school enrollment at a moderate price is the goal of the school food service programs throughout the state. One step toward this goal is wise food purchasing. Food purchasing considering quality and cost may aid a program in improving meals, increasing participation and controlling plate waste and cost. This outline is designed to help school food service managers purchase meats, meat products, fruits and vegetables wisely.

Kay Kilby  
Assistant Supervisor  
School Food Services  
School District No. 1  
Great Falls, MT



# Overall View of Purchasing Food





## I. General Requirements

### A. Purchasing Ethics

1. Mutual respect and honesty must exist between the buyer and seller.
2. Do not become obligated to any seller by accepting gifts or favors.
3. Be fair.
4. Keep regular hours for salesman's appointments.
5. Do not play vendors against one another by discussing prices and other information with competitors.

### B. Buyer Expectations

1. Regular calls.
2. Familiarity with the buyer needs and problems.
3. Knowledge of their products.
4. Familiarity with new products.
5. Up to date knowledge of market trends.
6. Reliability of prices, deliveries and delivery dates.
7. Compliance with contract terms and bid specifications.
8. Supply certificates or lab analysis of their products if requested.
9. Sanitary processing facilities and personnel.

### C. Seller Expectations

1. Accurately prepared orders with any specific requirements in writing.
2. Questions about price made before deliveries.
3. Allow sufficient time for vendors to complete orders without additional expense to his firm.
4. Take any problems with products, deliveries or billing to the vendor, not the delivery person.
5. Listen - vendors have valuable information to offer about products, market trends, etc.
6. Keep appointments or call to make necessary changes.
7. Any criticisms should be constructive in nature.

## D. Purchasing Methods

1. Formal Purchasing - Formal purchasing involves a written invitation to vendors for bids on specific items with written specifications for the items, delivery and payment. This method includes several steps and may be quite lengthy. Prices may be more competitive because of the volume. The steps included in formal purchasing include:
  - a. Market orders - quantity orders from each unit based on their individual needs.
  - b. Requisitions - summary of market orders.
  - c. Invitation to Bid - includes written item specifications and general conditions.
  - d. Contract Award and Purchase Order - Before any awards are made products should be tested and compared. This is to insure that the items bid meet the specifications and to choose the best product in terms of quality and price. All bidders should receive a copy of the test results and the final bid awards.
  - e. Evaluation - Once the items are received they should be checked to insure the bid item was delivered and an evaluation of the product in use should be made.
  - f. Emergency Purchase - in case of emergency purchases a procedure should be established so that purchases can be made in an easy and orderly manner.
  - g. Advantages of Formal Purchasing
    - (1) Lower prices because of the larger volume.
    - (2) Reduction of time and paper work.
    - (3) Tighter control on product standards.
    - (4) Reduction of inventory with better control.
    - (5) Savings through prompt payments.
    - (6) Vendor competition.
  - h. Disadvantages of Formal Purchasing
    - (1) Limited emergency buying.
    - (2) Limited advance notice of new products.
    - (3) Less flexibility because of extensive pre-planning.
    - (4) Limited communication between school lunch manager and vendors about products.
2. Informal Purchasing - Informal purchasing involves the same steps as bid buying or more formal purchasing but is used when time is an important factor and the quantity is not large. In most cases the following steps are followed:
  - a. A list of select suppliers is compiled.
  - b. Price quotations and negotiations are done on the telephone or in person.



- c. Prices should be obtained from at least three vendors.
  - d. Written records of all quotations should be kept in case of legal problems even though informal quotations have little legal protection.
3. Cooperative Purchasing - Cooperative purchasing involves several usually small districts which enter into an agreement for the purchase of specific items. In this way these small districts may enjoy the price advantage of larger volumes. The formal purchasing methods are used and separate billing and delivery may be written into the contract or one district may receive all the goods and deliver to and bill the other districts.
4. Other Considerations - The School Food Service manager has purchasing responsibilities no matter what method of purchasing the district uses. Some of these responsibilities may include:
- a. Determine items to be purchased.
  - b. Quantities to be purchased.
  - c. Write item specifications.
  - d. Inspect samples.
  - e. Establish order and delivery procedures.
  - f. Test and evaluate new products.

In some cases the manager must act as the purchasing agent also and acquire other duties.

- a. Obtain prices.
- b. Guard contracts.
- c. Adjust and settle complaints.
- d. Maintain good vendor relations.

After the method of purchase has been determined there are several questions which should be answered before purchasing begins.

- a. How much money is budgeted for food and other supplies for school food service? Determine who will be responsible for purchases, for receiving, for payments.
- b. What is planned on the menu? Try to incorporate the following when planning menus.
  - (1) Federal regulations governing the Type A meal.
  - (2) Student preferences based on past experiences.
  - (3) Available inventories for purchases and donated foods.
  - (4) Labor involved in preparation, serving and cleanup.
  - (5) Plate waste.
  - (6) Variety.

- c. How much storage space is available of each type (dry, cooler, freezer) and the quantity of foods which can be stored in each.
- d. How and when orders and deliveries will be made. Make a time table.

<u>Foods</u>	<u>Delivery</u>	<u>Bid Period</u>
Milk, Ice Cream	Daily	Annual
Bakery Products	Daily as required	Annual
Canned Foods	Monthly or bi-monthly	Annual or Quarterly
Staple Groceries	Monthly or bi-monthly	Annual or Quarterly
Meat, Poultry & Eggs	Daily, Twice Weekly or Weekly	Quarterly, Monthly or Weekly
Frozen Foods	Daily, Twice Weekly or Weekly	Quarterly, Monthly or Weekly
Fresh Produce	Daily, Twice Weekly or Weekly	Quarterly, Monthly or Weekly
<u>Supplies</u>	<u>Delivery</u>	<u>Bid Period</u>
Paper Supplies	Monthly or bi-monthly	Annual
Cleaning Supplies	Monthly	Annual

NOTE: Frequent deliveries may increase the price on items.

Reproduced from Pointers of Purchasing Food For School Food Service

- e. Who to purchase from. Compile a list of suppliers who are reliable and meet with the districts approval. Keep a record of the suppliers products and their (suppliers) performance for future reference.

#### E. Writing Specifications

1. Specification - a discription stating clearly and concisely the characteristics of the item to be purchased.
2. Specifications should:
  - a. be simple and clear but specific enough to prevent a bidder from evading the provisions.
  - b. provide a method of checking the product to be sure the product delivered is the product desired.

- c. have reasonable tolerances to be fair to the seller and protective of the buyer.
- d. be broad enough to be met by several bidders for the sake of competition.

3. Specifications should include:

- a. Name of product (trade or common)
- b. Grade, quality discription (federal, trade, brand or other)
- c. Size of containers (pack or number of items per container if applicable)
- d. Any specific factors needed to obtain the specific item
- e. Unit pricing
- f. Quantity required

F. Labels - The ability to read labels and understand them is helpful to all consumers. Package labels give you a mental picture of the product and provide the pertinent information on which purchasing decisions are made.

1. Labels must meet the following criteria:

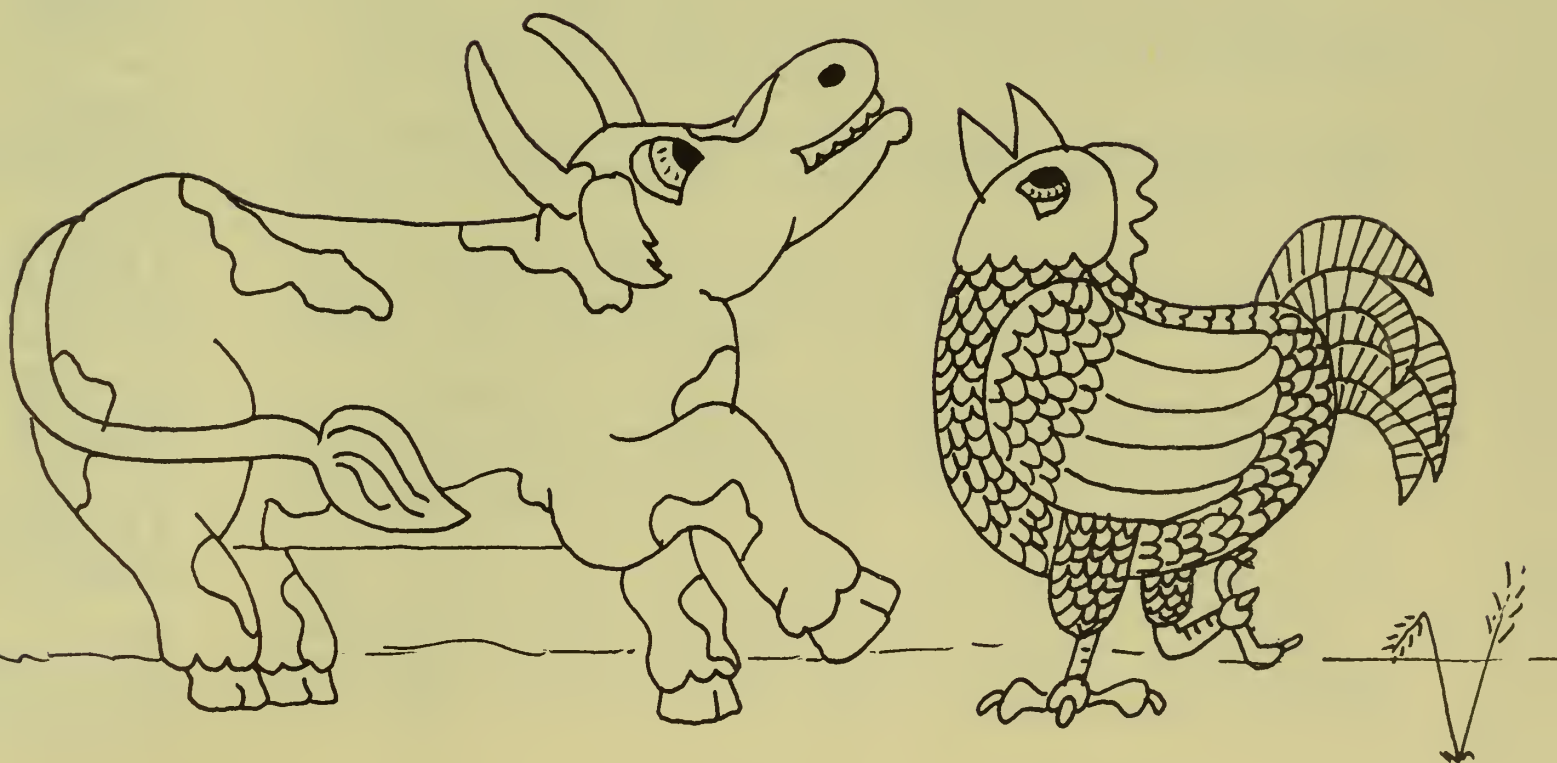
- a. the common name
- b. show the name and address of the manufacturer, packer or distributor
- c. list the net contents by count, fluid or weight
- d. be prominent and easy to read
- e. have no foreign words
- f. bear the specific name not collective name of the product's ingredients except for words like spice, flavoring and coloring
- g. list in order of greatest to least proportion the names of the ingredients
- h. bear the exact definition of dietary properties if claims are made for them
- i. bear the term artificial, if artificial flavoring or coloring is used and the term chemical preservatives if they are used.

The use of additives (coloring, preservatives, or other substances) considered harmful are prohibited and the burden of proof lies on the manufacturer.

2. Labels may contain

- a. the brand name of the product.
- b. the size and maturity of product.
- c. a picture of the product
- d. kinds of seasoning used.
- e. the contents of can measured by cups or number of pieces.
- f. the number of servings.
- g. recipes or suggestions for use.
- h. storage instructions.

# **Meat, Meat Products & Meat Alternates**







## II. Meat, Meat Products and Meat Alternates

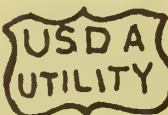
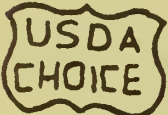
### A. Beef, Pork, Lamb, Mutton

1. Inspection - All meat shipped in interstate commerce must be federally inspected to insure the animals were free of disease at slaughter and the meat was handled in sanitary conditions. Meat which has been inspected by trained inspectors for wholesomeness bears a round purple U.S. Inspection Stamp. Some meat not involved in interstate commerce is inspected under state laws.
2. Grading - Federal grading is an optional service offered by USDA. This is a reliable guide to meat quality based on standards which are uniformly applied across the nation. Graded meat is stamped with a purple shield with the grade name and USDA inside. There are six grades of meat indicating quality, tenderness, maturity, color and appearance. These grades are:
  - a. Prime - highest quality. This grade is tenderest, juiciest and most flavorful because of an abundance of marbling (flecks of fat in the lean).
  - b. Choice - very high quality. This grade has less marbling but is still tender, juicy and flavorful.
  - c. Good - more lean than prime and choice. This grade is tender but not as juicy and flavorful because of the lack of marbling.
  - d. Standard - very little fat but fairly tender. This grade comes from young animals.
  - e. Commercial - from mature animals. This grade lacks tenderness even though it has some marbling.
  - f. Utility - lowest grade of "block" beef from mature animals. This grade has a high proportion of lean to fat and consequently lacks tenderness and juiciness.

Federal Meat Inspection



Non-Federal Inspection



Yield grades are also offered as an optional service from the USDA. They refer to the cutability or the amount of usable meat in the carcass.

Yield grades are number one to five with 1 having the highest cutability. High cutability refers to a minimum of fat cover, thick muscling and a high proportion of lean to fat.

It is important to remember that all grades of meat are nutritious. Compare yield and cost per serving because the lowest price per pound may not be the best buy. Also compare the cost per serving of pre-portioned meats.

Buyers of large quantities of meat may find it advantageous to use the acceptance service of the USDA. This service uses trained inspectors who select and supervise the preparation of the meat according to the detailed specifications called the "Institutional Meat Products Specifications (IMPS)". These inspectors accept the

product for the purchaser, who absorbs the cost. Each item or sealed carton is stamped with a shield containing the words "USDA Accepted As Specified" to assure the purchaser that the specifications have been met and that he is receiving a whole-some product.

Copies of the IMPS are available for a fee from:

Superintendent of Documents  
U.S. Government Printing Office  
Washington, D.C. 20402

There are established IMPS for:

general requirements  
fresh beef  
fresh lamb and mutton  
fresh veal and calf  
pork  
fresh cured, cured and smoked and fully cooked pork products  
fresh edible by-products  
fresh sausage products



**ACCEPTANCE STAMP  
(BN-34710)**

3. Nonstandardized Products - These include meat patties, beef and cereal patties, beef patties and trade name labeled patties. These products do not have "standards". The buyer must request a company or laboratory analysis of the product unless it has a percentage label showing the percentages of each ingredient. If this information is not available, request the ingredient formulation for a batch of the product and the number of servings yielded per batch. The product can then be analyzed as you would a recipe. When purchasing nonstandardized products the buyer is wise to write purchase specifications for these items including quality, grade, end, fat limitations of the raw meat used. To assure the amount of cooked lean meat per portion, the raw weight of each portion may also be specified.

## B. Poultry

1. Inspection - Federal inspection for wholesomeness by the USDA is required for all poultry sold in interstate commerce. Inspected poultry is stamped with an inspection mark. This mark indicates the product was processed in a sanitary manner in approved facilities, is unadulterated and is truthfully and informatively labeled.
2. Grading - Poultry grading is a voluntary service offered by the USDA. Grade standards have been determined for dressed or ready to cook poultry. U.S. grades are A, B, or C. "No Grade Birds" is a term used for those birds which are dirty, bloody, (head or carcasses) dirty feet, feathers or neck feathers. Grades are determined by conformation, fleshing, fat covering, freedom from defects like cuts or tears. The USDA grade mark is a shield containing the grade (A, B, C) and USDA.



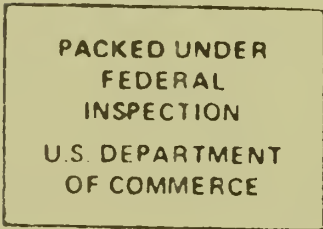
3. Classification - Poultry is classified by "kind" and "class". Kind includes chicken, turkey and ducks. Class is a division of each kind according to age and sex.
4. Specifications - Poultry specifications should include:
  - a. Kind - chicken, turkey, duck
  - b. Class
    - (1) Chicken
      - (a) fryer or broiler - either sex under 16 weeks old, tender soft smooth skin, flexible breast bone cartilage
      - (b) roaster - either sex under eight months, tender, soft, smooth skin, less flexible
      - (c) capon - neutered male under ten months, tender, soft, smooth skin
      - (d) hen or stewing hen (fowl) - female over ten months, less tender, with inflexible breast bone
      - (e) rooster - mature male, course, tough skin, darkened meat, hardened breast bone
    - (2) Turkey
      - (a) fryer or roaster - either sex under 16 weeks
      - (b) young hen or tom - either sex under eight months
      - (c) hen or tom - mature, over ten months
  - c. Style - how product is to be delivered
    - (1) live
    - (2) dressed
    - (3) ready to cook (cup up, split, parts, whole, quartered)
  - d. Type
    - (1) fresh - killed, cooled immediately and not held over three days, delivered under refrigeration at 40° F
    - (2) storage - same as fresh, held over three days
    - (3) frozen - cooled rapidly until hard frozen
    - (4) hard - chilled, held in frozen storage up to 60 days
    - (5) frozen - storage - held frozen over 60 days but less than 100 days
  - e. Size - weight of individual poultry

f. Grade

g. Acceptance service if it is to be used

C. Seafood

1. Inspection



- a. Federal inspection is voluntary and offered by the U.S. Department of Commerce and not required by law for fish moved in interstate commerce. An inspection includes quality, quantity, condition, packaging and any other factors which affect acceptability.
- b. Continuous inspection - Inspectors are present in a processing plant while it is operating to insure the plant, equipment and product meet strict sanitary requirements. Inspected products bear inspection marks and/or grade shields.
- c. Lot inspection is provided for a specific lot of fish or fish products. The lots vary in size and are located in plants, warehouses, cold storage or terminal markets. A representative sample is inspected for grade, quality and condition; condition only; other factors as requested. Lot inspection results in an official certificate.

2. Grading



- a. Grade A - best quality, uniform size, free of blemishes and defects, good flavor and color when cooked. Excellent condition.
- b. Grade B - good quality, not as uniform or free of blemishes and defects. The general commercial grade suitable for most purposes.

When products bear a mark "Packed Under Federal Inspection", these products are clean, safe and wholesome, properly labeled, processed in an acceptable establishment under the supervision of federal inspectors. These products may not be graded as to quality but meet the commercial quality according to the standards and specifications. Watch for these marks when purchasing fish products.



3. Specifications - fresh or frozen fish specifications should include:

- a. Quality - U.S. Grade A or B
- b. Market form
  - (1) whole - as they come from the water
  - (2) drawn - entrails removed
  - (3) dressed - scaled with head, tail and fins removed
  - (4) steaks - cross section slices of dressed fish

(5) fillets - sides of fish cut away from the back bone

(6) sticks - pieces cut lengthwise or cross fillets and breaded up to 38 percent

4. Canned Fish Specifications

a. Kind - tuna or salmon, etc.

b. Species - albacore, yellowfin, bluefin, etc.

c. Style of Pack

(1) solid pack - 82 percent solid pieces

(2) chunk - 50 percent of weight half inch or larger in diameter

(3) flakes - 50 percent less than half inch in diameter

(4) grated - mixture of small pieces

d. Packing Media - oil, water, brine

e. Container Size

D. Textured Vegetable Protein (TVP) - Textured vegetable protein products are made from edible protein sources and have the structure and texture to withstand hydration, cooking and other food preparation procedures.

1. To be used as part of the meat requirement for Type A lunches, textured vegetable protein products must meet the following requirements:

a. served in combination with ground or diced meat used in meat patties, meat loaves, meat sauces, stews and similar products using poultry and fish.

b. maximum moisture content of 60 to 65 percent

c. ratio of hydrated TVP to uncooked meat, poultry or fish should not be more than 30 parts TVP to 70 parts meat by weight.

2. Textured vegetable protein products must meet the following specifications to be accepted by the Food and Nutrition Service under FNS Notice 219.

a. Types

(1) Textured vegetable protein - 50 percent protein by dry weight

(2) granular protein concentrate - 70 percent protein by dry weight

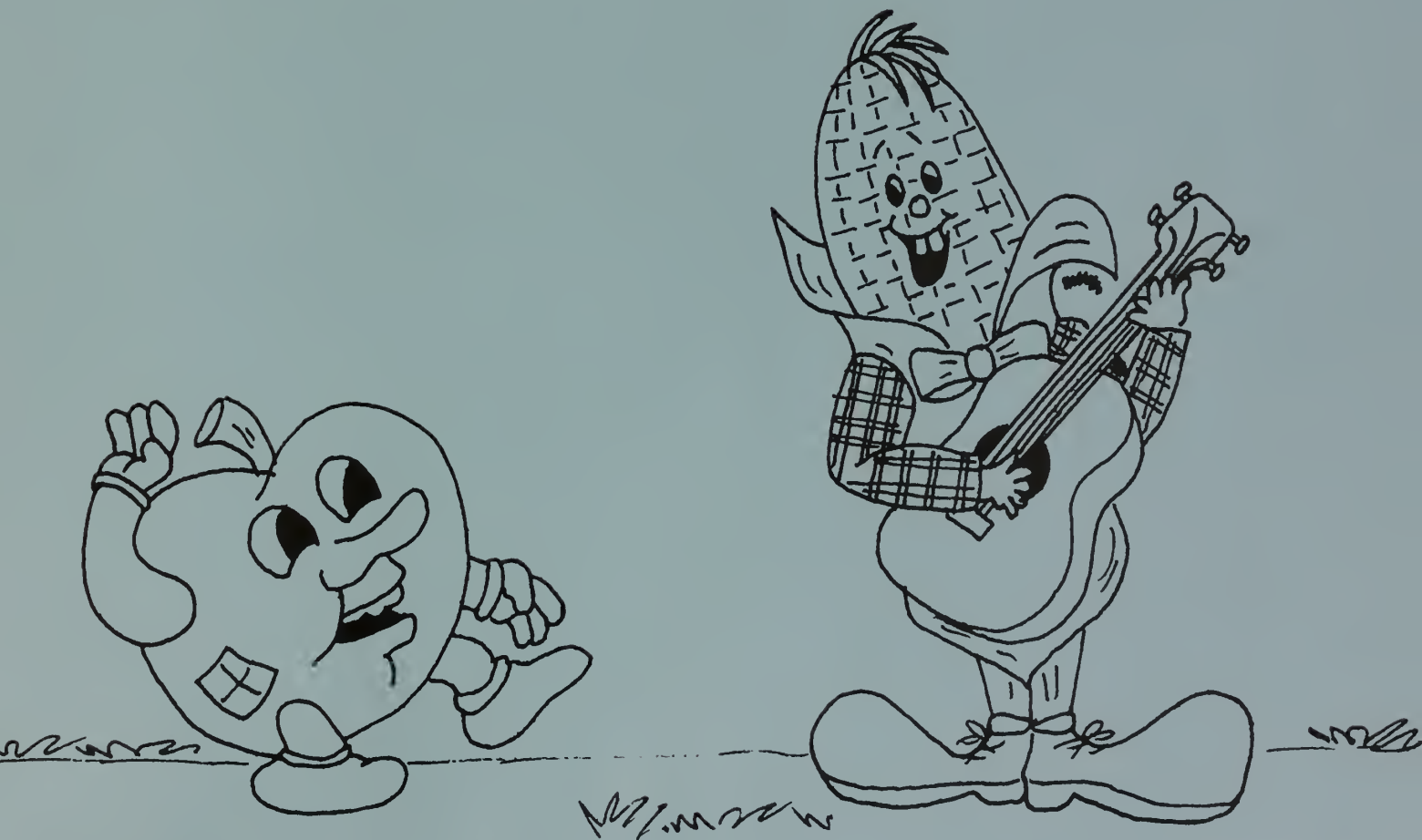
(3) textured isolates - 90 percent protein by dry weight

- (4) mixture of two or more types with 55 percent protein by dry weight (all types may be dry, hydrated, flavored, unflavored, colored, uncolored).
- b. Ingredients - all products should be made of food grade oilseed or cereal flour, derived protein concentrate or isolates alone or in combination with any of the following: edible fats, oil, carbohydrates, binders, stabilizers, natural or artificial flavorings, colors, amino acids, vitamins and minerals. All ingredients must conform with the requirements of the federal Food, Drug and Cosmetic Act. If standards for the product are established by the USDA or FDA they should follow these specifications.
- c. Nutritional specifications have been defined for all types of TVP. When a product containing TVP is considered for use by the schools the buyer should request:
  - (1) a letter certifying that the TVP product meets USDA specifications.
  - (2) copy of the formula used to manufacture the product.
  - (3) copy of the procedure used in manufacturing the product.

When writing specifications for products using TVP, the grade of meat, ration of hydrated TVP to uncooked meat and the manufacturing procedures must be included. If a TVP product is used in a school lunch kitchen, the vendor must provide proof the product meets USDA specifications.

- d. Procedures for using TVP affectively
  - (1) TVP is a substitute for meat, fish and poultry only
  - (2) the maximum ration of meat, fish, poultry to hydrated TVP is 70/30 (lower ratios may be used)
  - (3) TVP should be weighed not measured
  - (4) TVP should be hydrated with tap water not hot water to avoid fermentation, two parts water to one part TVP
  - (5) use hydrated weight in menu planning not dry weight
  - (6) hydrate only the amount to be used at a time
  - (7) beef base or gravy coloring added to the water may improve the flavor of the final product.

# Fruits & Vegetables







### III. Fruits and Vegetables

#### A. Fresh

1. Storage - Fresh fruits and vegetables are highly perishable and subject to extreme variations in quality. For this reason these products should be inspected at the time of purchase and delivery to insure the best quality. Fruits and vegetables may need to be purchased at more frequent intervals and in smaller quantities to reduce storage time. There is a rapid deterioration in quality beginning as soon as the product is picked.
2. Grading - Grading covers a large variety of produce and these factors must be considered when looking at a grade as a buying guide.
  - a. when the produce is graded (in the field or in the market)
  - b. the time of the season (the beginning, end or peak middle)
  - c. each market area has its own interpretation of grades (you must be familiar with these)
  - d. fresh produce is generally graded by
    - (1) U.S. Fancy or U.S. Extra No. 1, is above average in quality
    - (2) U.S. No. 1, good average produce and comprises about 50 percent of the crop
    - (3) U.S. No. 2, lowest grade

When purchasing fresh produce, keep in mind how the item will be used in the final product so the appropriate grade is chosen.

3. Types of pack to be familiar with
  - a. loose pack
  - b. struck full - leveled across top
  - c. bulging - a tight fill over the top layer
  - d. equal to facing - that lower layers are equal to top layer
  - e. volume filling - automatically counted electronically, may vary in count but saves labor costs
  - f. container counts and item counts may not be the same as the size of container is changed. Item counts may only be used to indicate size.

#### 4. Price

- a. market and distribution
- b. geographical section grown in
- c. climate, soil, weather
- d. handling
- e. distance and transportation
- f. temperature

#### B. Processed

1. Wholesomeness and Quality - USDA inspection can insure wholesomeness of products and that the products have been handled and processed in a sanitary manner. USDA inspection is voluntary and neither the U.S. Grade Shield or the shield denoting continuous inspection are required. Inspection and grading are the same for all processed fruits and vegetables, including canned, frozen or dry. The processor or distributor must pay for all inspection services.
  - a. Types of inspection include
    - (1) Lot Inspection - USDA inspects and certifies products for quality and condition
    - (2) Continuous Inspection - Processor must meet high standards of sanitation for plant and equipment. An official inspector is stationed at the facility during operation and inspects for sanitation, observes preparation of raw materials and selects random samples for review. After the finished product is complete, he gives a final inspection and if requested issues certificates showing the final grade of the lot.
    - (3) Pack Certification - Available to processors whose plants meet sanitary standards and use acceptable raw materials. An official inspector is not present at all times but each lot is certified as it is packed.

#### C. Canned

1. Grades - Grades are determined by scoring products on a basis of 1 to 100. Included in scoring are color, cut, absense of defects, tenderness, maturity and flavor. Any processor or distributor may label his products with grade A, B, C if they are inspected or not but the products must meet these standards.



- a. Grade A Fancy
  - (1) excellent quality
  - (2) practically uniform size, symmetrical
  - (3) top of the crop in color, texture, tender
  - (4) usually fruits are packed in extra heavy syrup
- b. U.S. Grade B - choice fruits, extra standard vegetable
  - (1) reasonably, uniform in size, good color, texture
  - (2) free from most defects - mature
  - (3) fruits in heavy syrup
- c. U.S. Grade C - standard
  - (1) fairly uniform size, color texture
  - (2) fairly free of defects
  - (3) very mature
  - (4) fruits in light syrup or water pack
- d. U.S. Grade D - substandard
  - (1) fall below grade C
  - (2) below standard of FDA
- e. Other considerations when purchasing processed fruits and vegetables include
  - (1) style of pack - sliced, whole, halves, diced, irregular, crushed, etc.
  - (2) variety or type - characteristic of the products
    - (a) Cling peaches
    - (b) Bartlett pears
    - (c) round or flat green or wax beans
  - (3) geographical area - climate, soil - produce different product, i.e. Hawaiian pineapple, Philippine pineapple

## 2. Containers

- a. Size - There are 32 different sizes with No. 10 cans the usual size.
- b. Kind
  - (1) plain - steel coated on both sides with tin
  - (2) enameled - to prevent foods from chemically reacting with the metals in the container, any reaction may affect flavor or color.

## 3. Packing Media

- a. Syrup - extra heavy, heavy or light. The densities of syrup differ according to fruit. Density is measured on the cut out rather than going in fruit because the fruits natural

juice and fruit absorb sugar during processing. Syrup is measured in degrees of Brix ( $1^{\circ} = 1$  percent sugar/weight).

- b. Water - water and small amounts of salt or sugar.
  - c. Juices - natural juice is added to the product, usually pineapple or tomatoes.
  - d. Heavy Pack - more product than liquid compared to packs.
  - e. Solid Pack - product with no liquid added.
4. Fill of Container
- a. USDA grade standard says fill as full as practical without damaging quality but the product and packing media must occupy 90 percent of can capacity. If a product does not meet these requirements it must be labeled "Below Standard in Fill".
5. Size and Range - size of item and number of pieces in can
- a. in fruits the larger the size the higher the grade
  - b. in vegetables the smaller the size the higher the grade

#### D. Frozen Foods

##### 1. Freezing Methods

- a. air blown - low temperature blown through air tunnels
- b. contact - packaged foods placed below cold plates
- c. immersion - placing in liquid nitrogen

Foods are cleaned, sorted, washed and blanched before freezing. The process of blanching removes dirt, destroys enzymes and bacteria and fixes color. Anti-oxidants maybe added to reduce browning. Foods are frozen in a liquid with some salt or sugar added. The buyer should request a fruit/sugar ratio from the vendor. Store frozen foods at  $0^{\circ}$  F and do not refreeze thawed foods.

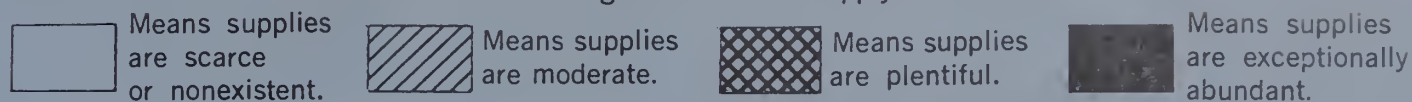
#### E. Dried, Low Moisture and Freeze-Dried Foods

##### 1. Drying methods

- a. dried - 75 percent moisture removed by sun or warm air, dried food contains 18 to 20 percent moisture (raisins)
- b. Vacu-Dried - 95 to 98 percent of moisture removed in enclosed chambers, less perishable, less insect infestation
- c. Freeze Dried - food frozen then dried in vacuum chambers where low pressure turns ice crystals to steam without being  $H_2O$ , product held rigid so not toughened or shrunken.

# FRUIT AND VEGETABLE AVAILABILITY

This chart shows when common fruits and vegetables are in supply.



COMMODITY	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
APPLES												
APRICOTS												
ARTICHOKES												
ASPARAGUS												
AVOCADOS												
BANANAS												
BEANS, SNAP												
BEETS												
BERRIES, MISC*												
BLUEBERRIES												
BROCCOLI												
BRUSSELS SPROUTS												
CABBAGE												
CANTALOUPE												
CARROTS												
CAULIFLOWER												
CELERY												
CHERRIES												
CHINESE CABBAGE												
CORN, SWEET												
CRANBERRIES												
CUCUMBERS												
EGGPLANT												
ESCAROLE-ENDIVE												
ENDIVE, BELGIAN												
GRAPEFRUIT												
GRAPES												

\*Mostly blackberries, dewberries, raspberries.

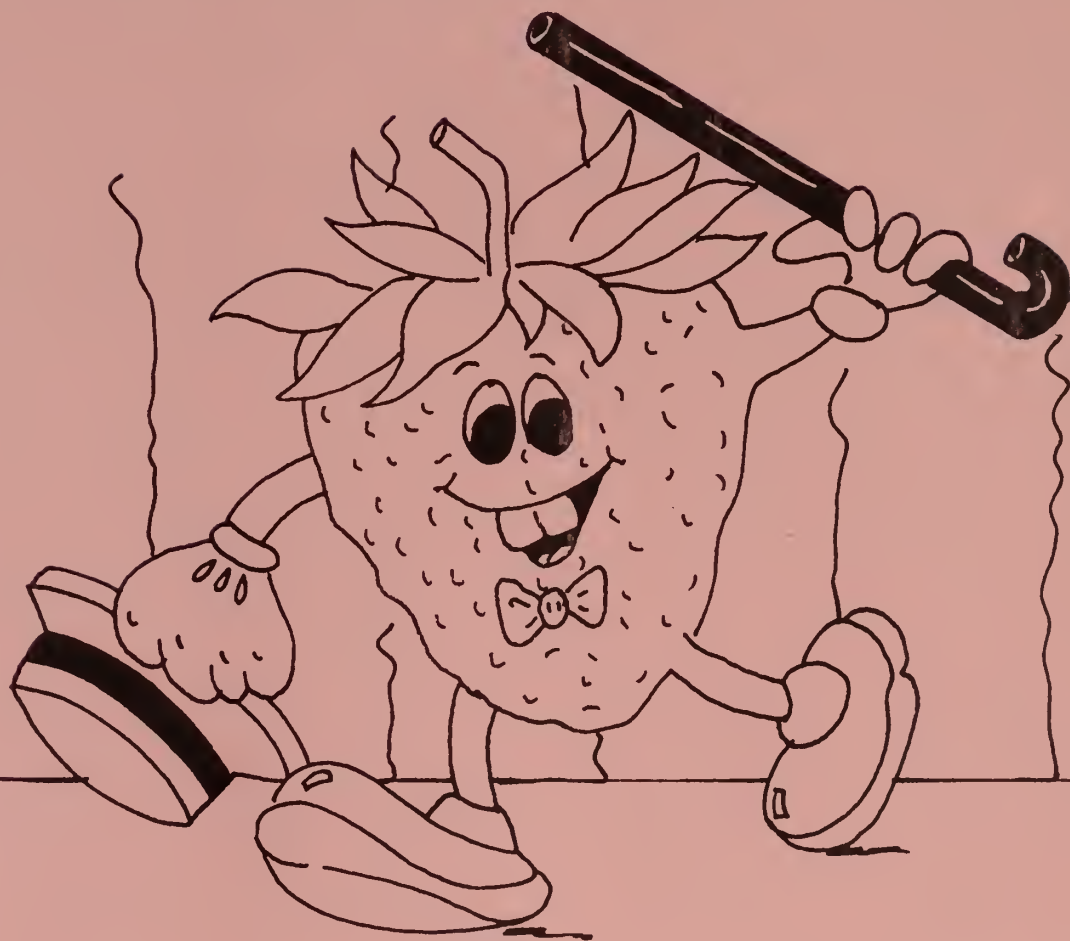


COMMODITY	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
GREENS												
HONEYDEWS												
LEMONS												
LETTUCE												
LIMES												
MUSHROOMS												
NECTARINES												
OKRA												
ONIONS, DRY												
ONIONS, GREEN												
ORANGES												
PARSLEY & HERBS**												
PARSNIPS												
PEACHES												
PEARS												
PEPPERS, SWEET												
PINEAPPLES												
PLUMS-PRUNES												
POTATOES												
RADISHES												
RHUBARB												
SPINACH												
SQUASH												
STRAWBERRIES												
SWEETPOTATOES												
TANGERINES												
TOMATOES												
TURNIPS-RUTABAGAS												
WATERMELONS												

\*\*Includes also parsley root, anise, basil, chives, dill, horseradish, others.

Information courtesy of United Fresh Fruit and Vegetable Association, Washington, D.C.

## References





## REFERENCES

Cazier, Amelia and Joan Tuck, Pointers For Purchasing Food For School Food Service, NTSS, FNS, USDA, 1973.

"Determining Meat Contributions to the Type A Lunch", Type A Topics, FNS, USDA, April 1977.

Flanagan, Helma, School Food Purchasing Guide, American School Food Service Association and the Research Corporation of the Association of School Business Officials, 1968.

How to Buy Food, Lesson Aids for Teachers, Agricultural Handbook No. 443, U.S. Government Printing Office, Washington, D.C., 1973.

Kolschevar, Lendal H., Quantity Food Purchasing, John Wiley and Sons, Inc., New York, 1975.

The Right Way of Textured Vegetable Protein, California State Department of Education, Food Service Office, 1972.



